

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A data processing method including receiving input data containing a plurality of instruction codes, and judging whether or not a process executed based on the instruction codes contained in the received data is a malicious process, said method comprising:

retrieving an instruction code related to a branch instruction from the data;

reading one byte of the data;

judging whether a branch destination address associated with a branch destination is larger than a branch origin address based only on the one byte of the data read;

storing ~~a~~the branch origin address associated with the retrieved instruction code and ~~a~~the branch destination address associated with ~~a~~the branch destination of the instruction code when the branch destination address associated with the branch destination is judged to be larger than the branch origin address;

judging whether or not an instruction code for calling an instruction code group for executing a predetermined process is associated with the branch destination address;

storing a call destination address of the instruction code if the instruction code is associated with the branch destination address;

judging whether or not the stored call destination address is between the branch origin address and the branch destination address; and

concluding that the process executed based on the instruction codes contained in the data is a malicious process, when the instruction code for calling the instruction code group for executing the predetermined process is associated with the branch destination address and the

call destination address of the instruction code is between the branch origin address and the branch destination address.

2. (Currently amended) A data processor including means for receiving input data containing a plurality of instruction codes, for judging whether or not a process executed based on the instruction codes contained in the received data is a malicious process, said data processor comprising:

means for retrieving an instruction code related to a branch instruction from the data;

means for reading one byte of the data;

means for judging whether a branch destination address associated with a branch destination is larger than a branch origin address based only on the one byte of the data read;

means for storing ~~a~~the branch origin address associated with the retrieved instruction code and ~~a~~the branch destination address associated with ~~a~~the branch destination of the instruction code when the branch destination address associated with the branch destination is judged to be larger than the branch origin address;

means for judging whether or not an instruction code for calling an instruction code group for executing a predetermined process is associated with the branch destination address;

means for storing a call destination address of the instruction code if the instruction code is associated with the branch destination address; and

means for judging whether or not the stored call destination address is between the branch origin address and the branch destination address, wherein

it is concluded that the process executed based on the instruction codes contained in the data is a malicious process, when the instruction code for calling the instruction code group for executing the predetermined process is associated with the branch destination address and the call destination address of the instruction code is between the branch origin address and the branch destination address.

3. (Currently amended) The data processor as set forth in claim 2, further comprising means for judging whether or not a predetermined character string is associated with a return address of the instruction code group, wherein if the character string is associated with the return address, the information indicating that the data is data for executing a malicious process is outputted.

4. (Currently Amended) A data processor including means for receiving input data containing a plurality of instruction codes, for judging whether or not a process executed based on the instruction codes contained in the data received by the means is a malicious process, said data processor comprising:

means for retrieving an instruction code for calling an instruction code group for executing a predetermined process from the data; and

means for reading one byte of the data;

means for judging whether a branch destination address associated with a branch destination is larger than a branch origin address based only on the one byte of the data read;

means for storing the branch origin address associated with the retrieved instruction code and the branch destination address associated with the branch destination of the instruction code when the branch destination address associated with the branch destination is judged to be larger than the branch origin address;

means for judging whether or not a predetermined character string is associated with a return address of the instruction code group, wherein

it is concluded that the process executed based on the instruction codes contained in the data is a malicious process, when the instruction code for calling the instruction code group for executing the predetermined process is in the data and the predetermined character string is associated with the return address of the instruction code group.

5. (Currently Amended) A data processor including means for receiving input data containing a plurality of instruction codes, for judging whether or not a process executed based on the instruction codes contained in the data received by the means is a malicious process, said data processor comprising:

means for retrieving an instruction code for calling an instruction code group for executing a predetermined process from the data;

means for reading one byte of the data;

means for judging whether a branch destination address associated with a branch destination is larger than a branch origin address based only on the one byte of the data read;

means for storing the branch origin address associated with the retrieved instruction code and the branch destination address associated with the branch destination of the instruction code

when the branch destination address associated with the branch destination is judged to be larger than the branch origin address; and

means for judging whether or not an instruction code for obtaining a return address of the instruction code group is contained in the instruction code group if the instruction code is retrieved, wherein

it is concluded that the process executed based on the instruction codes contained in the data is a malicious process, when the instruction code for calling the instruction code group for executing the predetermined process is in the data and the instruction code for obtaining the return address of the instruction code group is contained in the instruction code group.

6. (Canceled)

7. (Currently Amended) A computer-readable memory product storing a computer program including causing a computer to judge whether or not a process executed based on input data containing a plurality of instruction codes is a malicious process, the stored computer program comprising:

causing the computer to retrieve an instruction code related to a branch instruction from the data;

causing the computer to read one byte of the data;

causing the computer to judge whether a branch destination address associated with a branch destination is larger than a branch origin address based only on the one byte of the data read;

causing the computer to store ~~a~~the branch origin address associated with the retrieved instruction code and ~~a~~the branch destination address associated with ~~a~~the branch destination of the instruction code when the branch destination address associated with the branch destination is judged to be larger than the branch origin address;

causing the computer to judge whether or not an instruction code for calling an instruction code group for executing a predetermined process is associated with the branch destination address;

causing the computer to store a call destination address of the instruction code if the instruction code is associated with the branch destination address;

causing the computer to judge whether or not the stored call destination address is between the branch origin address and the branch destination address; and

causing the computer to conclude that the process executed based on the instruction codes contained in the data is a malicious process, when the instruction code for calling the instruction code group for executing the predetermined process is associated with the branch destination address and the call destination address of the instruction code is between the branch origin address and the branch destination address.

8. (Currently Amended) A data processor comprising:

an input unit for inputting data containing a plurality of instruction codes;

a storing unit for storing the data input by the input unit; and

a controller capable of performing operations of;

retrieving an instruction code related to a branch instruction from the data stored in the storing unit;

reading one byte of the data;

judging whether a branch destination address associated with a branch destination is larger than a branch origin address based only on the one byte of the data read;

storing ~~a~~the branch origin address associated with the retrieved instruction code and ~~a~~the branch destination address associated with ~~a~~the branch destination of the instruction code in the storing unit when the branch destination address associated with the branch destination is judged to be larger than the branch origin address;

judging whether or not an instruction code for calling an instruction code group for executing a predetermined process is associated with the branch destination address;

storing a call destination address of the instruction code in the storing unit if the instruction code is associated with the branch destination address;

judging whether or not the stored call destination address is between the branch origin address and the branch destination address; and

concluding that the process executed based on the instruction codes contained in the data is a malicious process, when the instruction code for calling the instruction code group for executing the predetermined process is associated with the branch destination address and the call destination address of the instruction code is between the branch origin address and the branch destination address.

9. (Currently Amended) A data processor comprising:

an input unit for inputting data containing a plurality of instruction codes;

a storing unit for storing the data input by the input unit; and

a controller capable of performing operations of;

retrieving an instruction code for calling an instruction code group for executing a predetermined process from the data;

reading one byte of the data;

judging whether a branch destination address associated with a branch destination is larger than a branch origin address based only on the one byte of the data read;

storing the branch origin address associated with the retrieved instruction code and the branch destination address associated with the branch destination of the instruction code when the branch destination address associated with the branch destination is judged to be larger than the branch origin address;

judging whether or not a predetermined character string is associated with a return address of the instruction code group; and

concluding that the process executed based on the instruction codes contained in the data is a malicious process, when the instruction code for calling the instruction code group for executing the predetermined process is in the data and the predetermined character string is associated with the return address of the instruction code group.

10. (Currently Amended) A data processor: comprising:

an input unit for inputting data containing a plurality of instruction codes;

a storing unit for storing the data input by the input unit; and

a controller capable of performing operations of;

retrieving an instruction code for calling an instruction code group for executing a predetermined process from the data;

reading one byte of the data;

judging whether a branch destination address associated with a branch destination is larger than a branch origin address based only on the one byte of the data read;

storing the branch origin address associated with the retrieved instruction code and the branch destination address associated with the branch destination of the instruction code when the branch destination address associated with the branch destination is judged to be larger than the branch origin address;

judging whether or not an instruction code for obtaining a return address of the instruction code group is contained in the instruction code group if the instruction code is retrieved; and

concluding that the process executed based on the instruction codes contained in the data is a malicious process, when the instruction code for calling the instruction code group for executing the predetermined process is in the data and the instruction code for obtaining the return address of the instruction code group is contained in the instruction code group.

11. (Previously presented) The data processing method according to claim 1, wherein the malicious process causes an erroneous operation in the process executed based on the instruction codes contained in the received data.